/337 cont./

243 [476] [534] Once their fields are free of weeds, the Chiriguano call together relatives and friends. On the date agreed upon, all go to the fields early in the morning, after waking each other up with shouts, whistles, and by blowing into cow horns, which for them take the place of horns (in Chiriguano: waka-ranti) (Fig. 5), each trying to outdo the other. In olden days the [622] village chief used to take part in the sowing and watched to make sure that all helped one another.

[534] [321] Fig. 5. Cow horn (waka-ranti) which the Chiriguano use for a horn. The end is carved into a mouthpiece. Prov.: Ibopeytí. (1/5 nat. size.)

Sowing is done in a very simple way. If the ground is soft, the Indian sticks his shovel vertically into the soil, after giving two or three thrusts in order to push it in as far as possible. He enlarges the slit by pushing his shovel forward without drawing it out and slips two or three kernels of corn into the opening. Without changing position he makes two or three similar holes on his right and left, takes a step forward and begins again. The plants thus grow in a certain alignment /338/ which is far from perfect. Since several work at [461] a time, the job is done quickly. At noon, or about two o'clock [273] in the afternoon at the latest, they have finished their task and go back to the village where the chicha or kãwi, which the owner of the field has had prepared for his helpers, awaits them

1: Métraux--178 E-5 (1929) 1930 SF10 Chiriguano SF10
Omaguaca SI9
Atacama S65

/399 cont./ It is already evident that the pottery of the Humahuaca region shows identical characteristics from the north of Jujuy to the vicinity of La Quiaca. To me the local variations seem absolutely negligible. Boman (2, Vol. I, p. 77) was already expressing himself in the following manner on the relations between these two regions: "If one wishes to compare the objects dug up in the Humahuaca region with the pre-Hispanic remains of other regions, they would be most like those of the Chichas." At

Fig. 37. Panpipe made of olive-hued stone, found on the upper Pilcomayo near the Chiriguano village of Ibopeytí at the same time as the vessel on Plate XXV. (1/2 nat. size.)

Tolomosa in Bolivia, in the department of Tarija, the von Rosen mission (2, Fig. 175, p. 112) found an ornithomorphic dish, an exact replica of the famous puco of this type discovered at La Paya in the Calchaqui Valley.

The Humahuaca-Chicha culture does not form an isolated bloc. It is more or less closely related to those whose remains have been studied in the northwest of Argentina in Diaguite territory, on the Puna de Atacama and de Jujuy, in the Atacama Desert, in the north of Chile and the extreme south of Peru. In the geographic area thus defined, it surely seems as though there was formerly a center of acculturation whose existence was pointed out only a few years ago.

/463 cont./

796 273 578 The attraction of the carnival consists of the enormous consumption of kāwi and alcohol which takes place then. Men and women drink, one trying to outdo the other; and, under the influence of drink, old angers and secret hates are awakened and the most excited provoke each other and come to blows.

796 532

Fig. 120. Chiriguano Indians wearing masks. (Photo. by the R. P. H. Catinari.)

796 273 578 /464/ The "captain" must then call them to order and separate the combatants.

796 534 Some people increase the tumult by blowing into their sénéné (long whistles).

Sexual passions become aroused, and the men begin to whirl around the women, whom they entreat, a calabash of kāwi in the hand, while reciting to them in a singsong tone pieces of verse of this type:

796 832 786 539

Epuka, puka maipora	Laugh harmoniously
Seve no	For me
Epuka, puka maipora	Laugh harmoniously
Seve no.	For me.

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chané SF8

C
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C
[171]

MANUFACTURES

Pottery.—*Chiriguano* pottery is, for the beauty of its painted decoration and the variety of its forms, outstanding in modern South America. The mixed origin of *Chiriguano* culture is reflected in the two types of earthenware vessels. The plain pots for cooking and the large jars for chicha, which did not differ from similar vessels of the Paraguayan *Guaraní*, were ornamented with fingernail impressions (pl. 41, *bottom, right*).

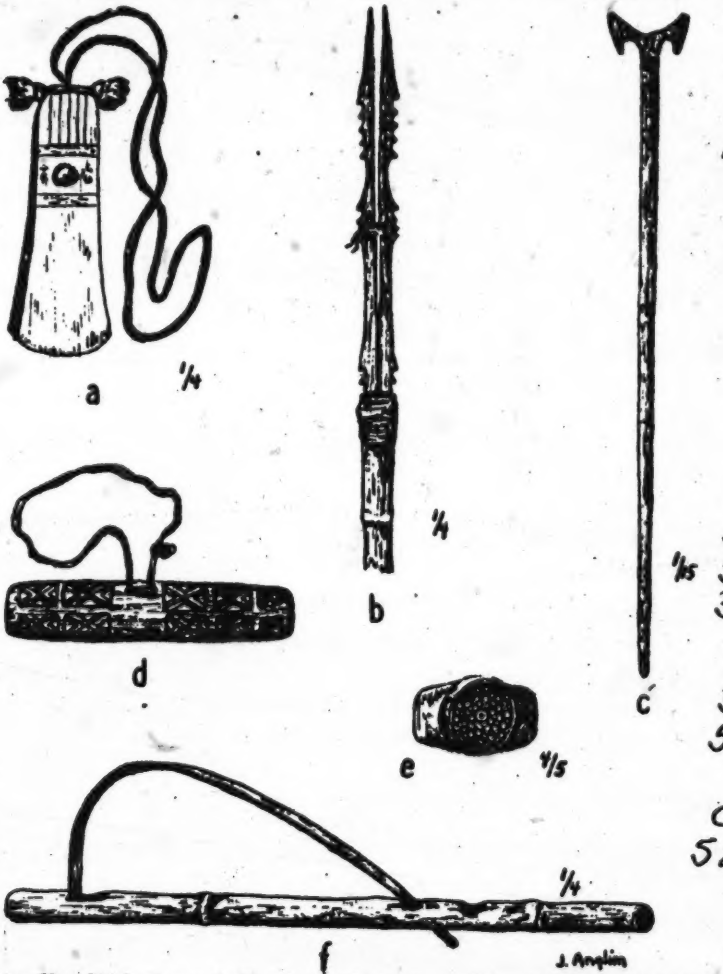

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FIGURE 59.—*Chiriguano* and *Chané* manufactures. *a*, Silver pincers used as breast ornaments; *b*, bird arrow point; *c*, handle to wooden spade; *d*, wooden whistle used as ornament; *e*, tin labret with mosaic inlay; *f*, *Chané* pea-shooter. (*a*, *d*, *e*, Redrawn from Rosen, 1924; *b*, *c*, *f*, from Nordenskiöld, 1920, figs. 29, 15, 5, 34.)

653333—47—33

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chane SF8

the warriors, whom orators constantly exhorted to fight. The main tactic was to surprise and not to be surprised. Scouts were sent ahead of the army and sentries were placed on guard at night. The attack was carried out at dawn. During the battle, the women of the attacked village danced and sang to help their men resist. The victorious party returned with the heads of their slain enemies, which were subjected to all sorts of outrages.

CANNIBALISM

In the past, prisoners were ceremonially killed and eaten. The victims were usually the *Chané*, of whom, according to Lizárraga (1909, p. 552), the *Chiriguano* had eaten about 60,000 during the 16th century. Warriors delivered the captives to their children, who shot them with arrows. Prisoners whom they spared were incorporated into the *Chiriguano* tribe. In more recent times, the prisoners who were not put to death were kept as slaves.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—*Chiriguano* musical instruments are mainly copies of European or Andean instruments, such as the transverse flute. The transverse flute is Spanish, but the quena or end flute (pl. 43, *bottom*) is Andean. Among the most prized possessions of these Indians are round wooden whistles with two stops, and sereres, elongated pieces of wood, perforated lengthwise and blown by stopping the lower aperture (fig. 59, *d*). The clarinet with a slit reed tongue and the cowhorn bell are post-Columbian. The hide-covered drums beaten during feasts is of Spanish origin. Panpipes occur only among the *Chané* of the Parapetí River.

Dances.—Dancers of each sex form a separate line, holding hands with their neighbors. Under the leadership of a master of ceremony who beats time with a feather tuft, men dance on the same spot by bending the knee slightly while women move forward and backward or dance around the men, shaking rattles.

Drinking bouts.—Drinking bouts, in which enormous quantities of chicha are consumed, are attended by friendly communities, which are ceremoniously invited.

Narcotics.—Formerly, tobacco was grown in small quantities by the *Chiriguano* for ceremonial purposes. Today some *Chiriguano* smoke cigarettes, but seldom the pipe. A pre-Hispanic clay pipe was unearthed by Nordenskiöld at Caipipendi. Only a few *Chiriguano* who live near the *Quechua* chew coca, which, however, they do not cultivate.

Fermented drinks.—Maize chicha is the favorite beverage of the *Chiriguano*, who practically subsist on it during the weeks following harvest. Its preparation, entrusted to women, is a lengthy and com-

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10

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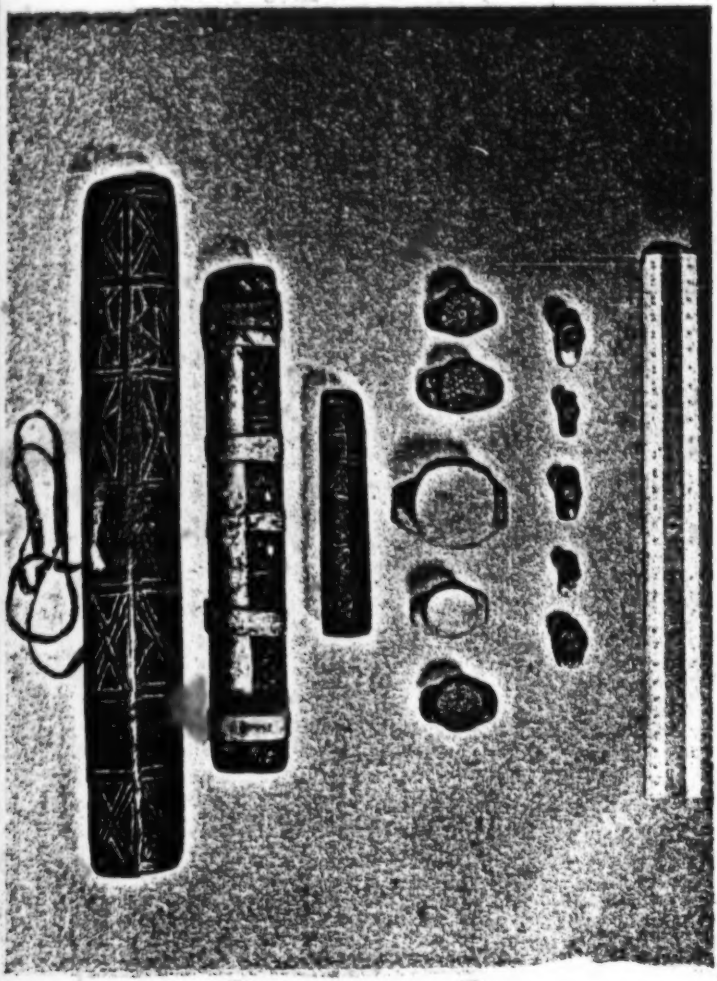

PLATE 43.—Chiriguano artifacts. Three engraved wooden aerophones and lip plugs of metal with inlays. (Scale, 30 cm.) (Courtesy Museo Etnográfico de la Facultad de Filosofía y Letras, Buenos Aires.)

[End Plate 3]

4: Nino--266 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

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Chiriguano adornments, etc.

[See pp. 273-274 for explanation of numbers]

/198 cont./

301 [562] [554] [527] I am going to end this chapter by mentioning a fancy ornament which has completely disappeared. It is a woman's ornament and is called Aguá, crown, and whoever wore it was called Cuña aguá vaé, crowned woman. The duty of this woman at the public drinking bouts and solemnities was to direct the women's dance, to direct the singing, and to give drinks to the singers and dancers with her own hands. The aguá was a varicolored band up to three meters long, which was put around the head, crossed at the back of the neck, and held on by thorns, needles, or big silver pins, and both ends terminated in tassels of various colors. It was a very striking ornament (1).

[126] 1. In order to send a complete aguá to the Turin exposition I had to have it made in the girls' school in Santa Rosa. I could not get one in the town; there were none even at that time.

000 Here is poor humanity without any exact idea of religion and worship, they are zealous and hard-working for the body, but have no concern at all for the soul. Only Christ can restore humankind, and tear away the veil which was obscuring its intelligence, and only the priest and Catholic missionary can teach him the sound doctrine of /199/ immortality and other dogmas, so that with this knowledge he may first seek the kingdom of God and receive the rest besides (1).

1. Quaerite primum regnum Dei et haec omnia adiicentur vobis.

392 Explanation of the Preceding Illustration

1. Sticks for getting fire.
534 2. Bull's horn for use as a musical instrument.
3. Tail of a quiriquincho /armadillo/ for use as a musical instrument.
412 4. Tweezers for pulling out the hair from the face and other parts.

λ [i.e., on p. 266.- Analyst]

301 /199 cont./

5. "Mboivera," or pieces of silver for adornment.
6, 7, 8. Metal tembetas.
9. A hollow-cane tembeta.
10. "Yapicuana," or band for the hair.
11. "Aguá," or long band for adornment of the queen in drinking festivals.

412 12. Wooden comb.

• 534 13. Porongo for playing as a musical instrument.

14, 15. "Senene," or Chiriguano flutes.
16. "Igüiramimbi" for playing as a musical instrument.
17. Stone ax.

/200/

Chapter Eight

The Chiriguano Family

Introduction

000 The theory of the founder of the transformist school, in which he attempts to demonstrate and establish the origin of the human race by means of evolution, is completely absurd. /The remainder of the introduction, pp. 200-202, is omitted in the translation. Page 202 continues as follows./

The Family

Genesis tells us of the origin of the human race, and outside of this book all is confusion; faith teaches us that God created the first man in His image and likeness, and later gave him a companion, taking her from his rib, from which it is deduced that the family began in the world, or in historical times, from the beginning of humanity (2).

792 793 871 2. Readers already know the story which Anduari told me regarding the creation of

/239 cont./

Old Method of Farming

241 In planting the fields which are already old, they use the same method of applying fire to the weeds and stubble that are left after the harvest; this method is even coming to be practiced by the whites and the mestizos. As far as fertilizing the land, the Chiriguano does not worry about it, because the lands are virgin and the Indian hardly plants maize on a large scale, and, if it rains regularly until the grain has become hard, the crop is abundant and the farmer has enough to eat and an abundance of chicha to drink, which is what he wants.

412 Formerly the ava had nothing but a wooden shovel and a stone ax, which is hard to find today. He obtained his livelihood with these insignificant tools; the ax served him for cutting trees and bushes and the spade for pulling up all the grass and brush. The spade was like those used by bakers for [824] [239] putting bread in the oven; it was of soto wood and was attached to a rather long handle with bejuco vines or strips of toborochi bark; the handle was always long, because the Indian /240/ neither knew nor does he now know how to bend his back at his farm chores; these spades were also made from the shoulder blade of cattle, horses, or asses (1).

000

1. Baron don Erland Nordenskiold, in addition to the pots from various regions of Bolivia, sent to the Swedish museum pots made by the Chiriguano, wooden spades, and stone axes.

241 [221] Planting was usually done in the month of November, after the ground had received at least two rains. Then the Indian would first destroy with his spade the small amount of grass that had come up, and then he would notify his friends and relatives so that they might help him to plant on [476] [534] the day indicated. The cacique took part in the general planting, ordering that those under him should help one another; thus, early on the said day, at daybreak, they would

241 [476] [534] /240 cont./ go to the plot, waking each other up with shouts, whistles, and by means of the Huacananti, cow's horn.

The method of planting is very simple. When the land is soft, the planter makes a small hole with his spade, using two or three blows, then pushes the spade forward, throws in two or three grains of seed and covers them. Then, without moving he makes another hole to the right, horizontal to the first, and a third to the left, performing the same operation as in the first, after which he takes a step and continues as before until he finishes. With many working, the planting of a plot is soon finished.

241 461 512 The Indian does not work beyond midday, and he tries to finish the job before leaving it in order not to return; therefore that the work sometimes lasts until two in the afternoon. Then the owner and his companions stop, return to the town, where they are awaited with plenty of food and chicha, which the former has ordered prepared, if the previous harvests were abundant (2).

[273] [262] 2. In any case, if there were a lack of chicha, because of previous scarcity, and mead made from algarrobas, the housewife should still wait for the planters with food mixed with some meat and plenty of chili peppers.

241 476 They formerly continued in this fashion until the planting of a tribe was completed; one day on one's own plot and another on that of a companion, and even the cacique did the same; today this is difficult to manage, because now they are not so close. Nevertheless, in times of scarcity, if someone prepares chicha for those who may wish to help him in planting or weeding, they leave or refuse money for a few matés or /241/ glasses of this much desired liquor. Even the whites get peons more easily this way.

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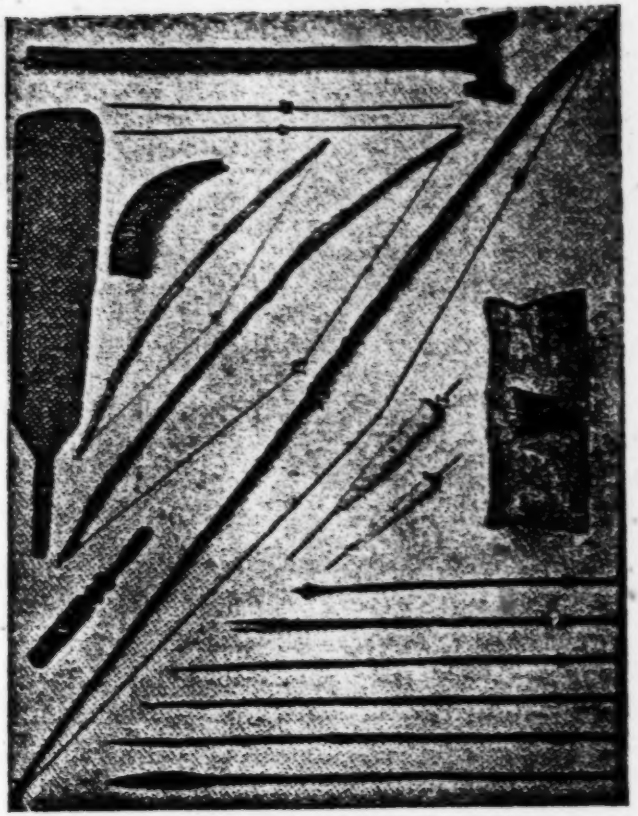

Bows, arrows, etc. /see p.382 for additional explanation/.

/275 cont./

411 [492] Warriors on horseback, in addition to having bows and arrows, use the lance; it is a piece of a knife or of iron tied to the tip of a stick; note that each warrior, according to what they say, cannot carry more than a dozen arrows, because they are heavy. •534 726 In order to inspire terror and fright in the attack they make on the enemy town, they use the Igũiramimbi, a wooden musical instrument, the Senene, and the Huacananti, or cow's horn (2).

> 2. The first is round, and it is very hard to pierce it, and the second is long. Both are of good wood, and they engrave figures and signs on them. They hang them from the neck by means of a cord. The wood is like ebony.

722 While some of them are preparing the bows and arrows, the braver men do not remain idle, nor do the women; the latter prepare the necessary provisions and even the chicha to celebrate the triumph, if they win it, and the former encourage the more cowardly ones, showing their ability as queremba in the streets and the plaza, animating them all, making them understand that triumph depends on them and that it is necessary to triumph at all costs if they do not wish to be subjected to the harsh condition of the conquered, thus losing everything, wife, children, home, and property.

726 704 /276/ When all the weapons are ready, those of the cavalry saddle their horses, putting the arrows on the right side, so that they can easily get them in case of urgency, because it is characteristic of the cavalry to yell insults at the enemy and to sow confusion on the battlefield with shouts and the noise of the igũiramimbi, huacananti, and porongos. Then, all of them, [292] foot soldiers, horsemen, and queremba, don their garb, some the [714] jacket /coleto/, others armor of garabatá, and they put on the [411] back of the left hand a strap of pygmy-deer hide, so that they will not hurt themselves when they shoot the bow, and, finally, [302] they all color their faces and arms with ground charcoal dampened in water. Let the reader consider if this army of demons would not frighten even the dead!

4: Nino--382 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

Explanation of the Preceding Illustration /see p. 368/

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1. Wooden spade for work.
2. Spade handle.
3. Bull's horn for blowing.
4. Implement for stirring food.
5, 6. Chiriguano spindles.
7. Chair or seat with two spaces for children.
8. A bow for adults.
9. Arrow with iron point.
10, 11, 12. Arrows with wooden point.
13. Bow for young people.
14. Arrow with two points for hunting and fishing.
15. "Songo," or arrow with rounded point for hunting small birds.
16. Bow for boys.
17, 18. Arrows for boys.

000

Chapter Thirteen

Illnesses, Remedies, Death, and Mourning

Introduction

One moment of reflection suffices for a man to understand that there is no true happiness on earth: he who can glory in being happy in this world finds many sorrows: unsatisfied desires, unexecuted orders, unfinished projects. The careless execution of injunctions constitutes thorns for the heart of the man who could call himself blessed. He would like everything to go along as he desires, and when this does not happen he suffers, and if he does not express his suffering he suffers much more (1).

1. It is a great relief for a man to be able to communicate his sufferings to a sincere friend, but it is difficult to find such, because he who has a friend has a treasure, and the treasure is a rare thing.

Mölkodamuseum E-4,(1908-1909, 1912) 1880
SP10 Chiriguano SP10 ●
Chané SP8

XX.

Musical instruments.

C
Ce
● 534 The Chiriguano and Chané have the following musical instruments: drums, flutes, whistles, and trumpets. Among the latter tribe I have also seen the panpipe and the musical bow. The panpipe may possibly occur among the Chiriguano too.

I have already, in Part I, dealt with the drum, the whistles, and the musical bow. The two former, I concluded, were Peruvian, the latter a post-Columbian culture-element.

C
Ce
[177] When studying Indian musical instruments we must bear in mind that, in post-Columbian times, they have learnt a good deal from Whites and negroes.

C
Ce
[217]
[212] At the mission stations the Indians are always instructed by the missionaries in music. At the Bolivian mission-stations it is not unusual to come across Indians who very well understand musical notation, though unable to read or write. At the Chiriguano mission stations there are full-blown musical bands.

C
[192] A large drum is called by the Chiriguano »angúahuasi», a ordinary drum »angúa» or »angúarai». Like the Guarani Indians in Paraguay the Chiriguano call a mortar »angúa». The Mataco sometimes make drums by stretching a skin over a wooden mortar. So too, if we are to be guided by the name, the Chiriguano drums must originally have appeared.

The long wooden-whistle (fig. 35 A) is very common among the Chiriguano and Chané, and often of great size; the round wooden whistle is more rare. Both are often elaborately carved.

Schnebelhaid E-8,4(1908-1909, 1912) 1910
SF10 Chiriguano SF10
Chaco SF6

227
C
534
531

A.

B.

Fig. 33. Wooden whistles.
A. Chiriguano, G. M. 13. I. 543. $^{1}/_{2}$. B. Chiriguano, In private collection. $^{1}/_{2}$

C
Ce
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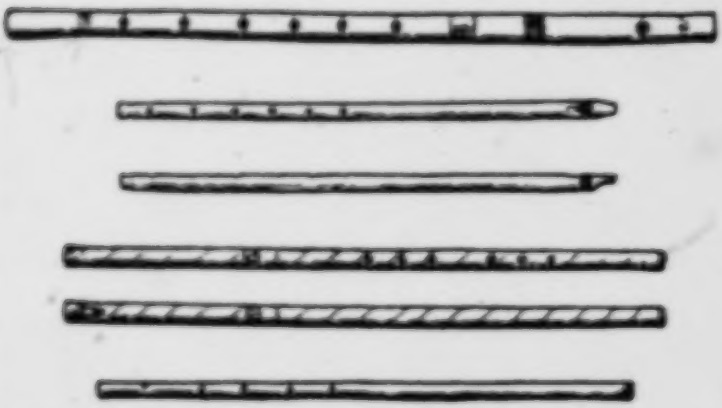
531



A
B
C
D

Fig. 34. A. Side-blown flute of reed. Chané, Río Parapití. R. M. P. 32. $^{1}/_{2}$
B. End-blown flute of reed. Chiriguano. R. M. F. 159. $^{1}/_{2}$
C. " " " " " " " F. 589. $^{1}/_{2}$
D. " " " " wood, Chané, Río Parapití. R. M. P. 37. $^{1}/_{2}$

5tNordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

C
Ce
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237

Flutes of several kinds are found among the Chiriguano and Chané, and they are here depicted. They are always made of reeds and never of bone (fig. 36).

C
Ce
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*171

Some of the Chiriguano and Chané flutes are not genuinely Indian. This is evidently the case with side-blown flutes with six carefully fitted holes. The like are not found among outlying tribes, nor, what is very important, have they been found in old excavations on the coast of Peru. No such flute is found among the 26 flutes depicted by MEAD from the coast of Peru. Nor are flutes of this kind found among the Choroti and Ashluslay. All the old Peruvian flutes are blown from the end, and the holes seem to be placed very arbitrarily. I have in my collections side-blown flutes from the Yuracáre, Chimáne, Itonama, Cavina, and Tapiete as well as from the Chiriguano and Chané. They are also found among the Cainguá. Everywhere they have six holes.[1]) They are never found among absolutely outlying tribes. Endblown flutes are undoubtedly pre-Columbian. All the flutes from the Peruvian coast described by MEAD are end-blown flutes. Three of them are made of reed, one of a calabash, the others of bone. Various kinds of end-blown flutes are very widely distributed in S. America. I have such flutes from the Chiriguano, Chané, Mataco, Toba, Tapiete, Ashluslay, Choroti. Yuracáre, and Huari.

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[1]) A flute of this kind is called by the Chané »kéna». Speaking of the Quichua musical instruments COBO says (IV. P. 228) »Quena — quena es una caña sola como flauta para cantos endechas.» The Cavina call a dance at which they play with flutes and drums »kena-kena». (NORDENSKIÖLD (11) P. 460.) CHERVIN, when mentioning the Quichua musical instruments, says that they, and especially the mestizoes, have their small flutes which they call »quena»... (P. 178). I presume that the Chané took over from the mestizoes not only the side-blown flute but also its name »quena» which the latter in their turn had obtained from the Quichua language. How the Quichua came to apply the word »quena» to a musical instrument which was originally unknown to them, I do not know.

5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

As I said in Part I the flutes in different parts of S. America are too little known for me to venture to express any opinion as to the source whence the Chiriguano and Chané got the end-blown flute.

Both the Chiriguano and Chané possess trumpets made of cowhorn. From the former I also have an old trumpet made from a calabash (Fig. 37 B) which I acquired at Caipipendi. I do not know whether this was ever provided with a mouthpiece. The Chané Indians have on their cowhorns mouthpieces of reed with lips (See Fig. 50. Part I). I have not seen these mouthpieces among the Chiriguano; they blow the cowhorns from the end without a mouthpiece. Most likely the Indians learned from the Whites to use mouthpieces of the aforementioned type.

Trumpets are very wide-spread in S. America, and it is interesting to notice the distribution of trumpets blown from the side and those blown from the end. The pre-Columbian date of the latter is certain, while that of the former is very doubtful. Map 10 indicates the distribution of these two types of trumpet.

Thus we see that side-blown trumpets occur especially in the basin of the Amazon,[1]) in the region where negro influence has been and is very great, and I do not think it impossible that the Indians have learnt to use such trumpets from the negroes. When negro slaves were brought to S. America, they naturally introduced many African ideas. Runaway slaves frequently sought refuge among the Indians. In Matto Grosso, for instance, it is probable that negroes had been in touch with Indians who had not yet seen Whites. From them the Indians would be able to learn a good deal.

When making a trumpet of an antelope horn or the tusk of an elephant, it is quite natural to make a hole in the

[text continues on p. 122]

[1]) From civilized Indians at Tupiza in Bolivia CHERVIN mentions side-blown trumpets which, it is quite certain, were introduced by the Whites at a late date.

5:Nordenskiöld E-5, (1908-1909, 1913) 1920
SF10 Chiriguano SF10

C
534
237
531
B
534

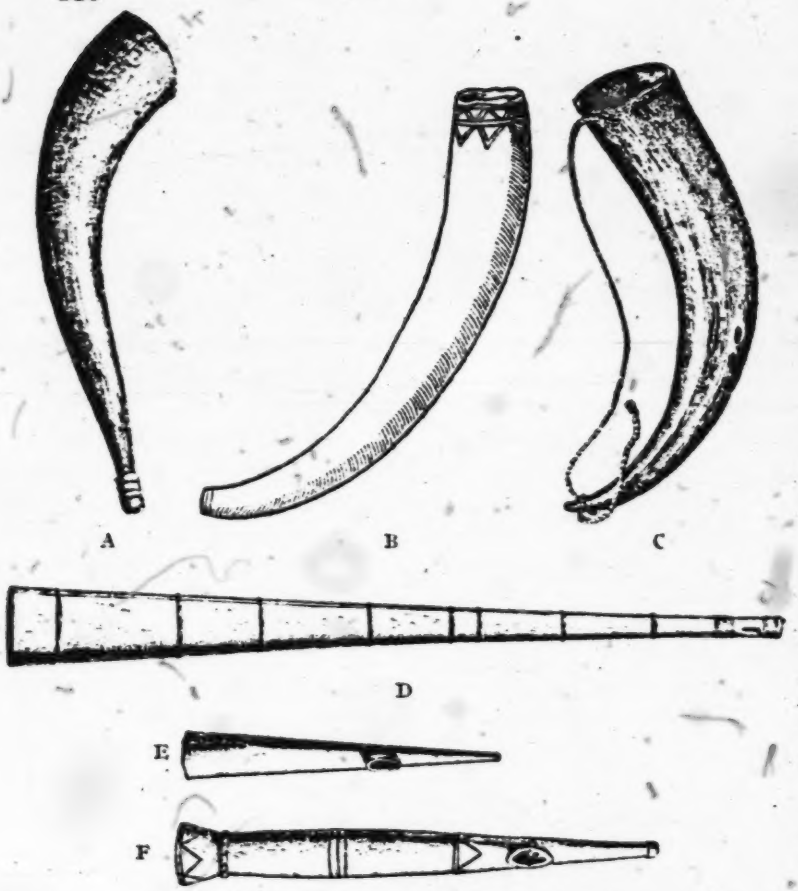
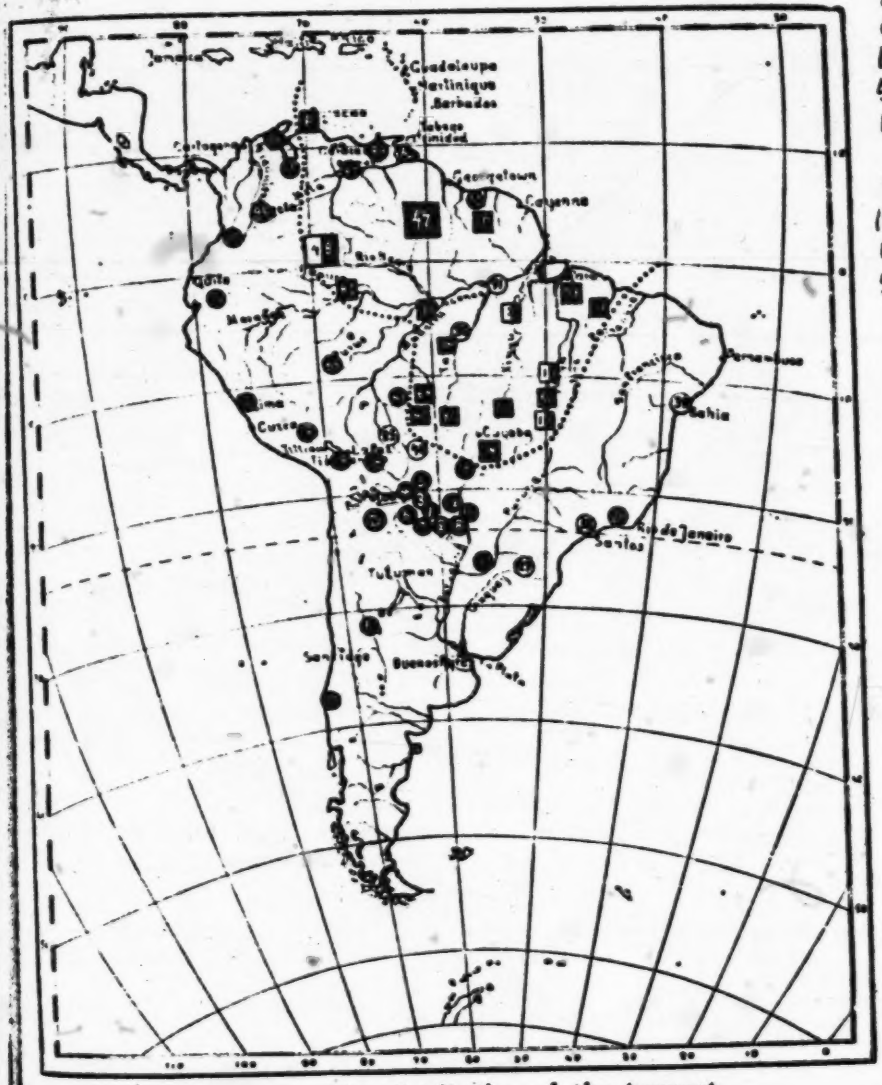


Fig. 37. A. End-blown trumpet made of cowhorn. Chiriguano. R. M. E. 97. 1/5.
B. End-blown-trumpet made from a calabash. Chiriguano. R. M. E. 511. 1/6
C. Side-blown trumpet made of cowhorn. British Guiana. Collection of LILJEWALCH—THULIN. G. M. 12. 1. 50. 1/6.
D. Side-blown trumpet made of wood. Parentintin(?), Brazil. R. M.
E. Side-blown trumpet made of tin-plate. Bush-negroes. Surinam. Collection of BARON KLINCKOWSTRÖM. R. M. K. 204. 1/8.
F. Side-blown trumpet made of wood. Bushnegroes. Surinam. Collection of KLINCKOWSTRÖM. R. M. K. 69. 1/8.

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10 ●
Chane SF8
South American Indians 53

C
Ce
102
534 ●
171 *

S
102
171
534



Map. 10. The distribution of the trumpet.

● = End-blown trumpets. ■ = Side-blown trumpets. ..... = S. and W. distribution of side-blown trumpets. ◨ = Both end-blown and side-blown trumpets occur. ○ = Trumpets occur or have occurred but I do not know whether they were end-blown or side-blown.

5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
South American Indians 53

C
C2
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side of the horn or tusk, as the point is not hollow; the same holds good, though to a less extent, of a cowhorn. It is therefore to be expected that the side-blown trumpet should be found in Africa and, further, that the negroes, on coming to America, should still make such trumpets, although of other materials. It is only in accord with the laws of conservatism.[1]) The Bush negroes of Surinam still have side-blown trumpets (Fig. 37 E, F) which, though of wood and tin-plate, are plainly copies of the trumpets used by their forefathers in Africa.

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In pre-Columbian times there were in S. America no suitable horns for making trumpets. Trumpets were made of other materials, the most primitive being probably large seashells. To make a trumpet of a large shell one only needs to knock off the point. It becomes an end-blown trumpet. The pre-Columbian date of end-blown trumpets is proved by numerous finds on the coast of Peru *where, on the other hand, a side-blown trumpet has never been found.*[2])

Thus there are no archaeological proofs that the side-blown trumpet in S. America is pre-Columbian. A fact which is against the idea that sideblown trumpets were brought to S. America by negroes is their considerable distribution and above all that a trumpet-like musical

[1]) Professor von Luschan (P. 191.) says about the side-blown trumpets from Benin. »Dem Beispiele von Hornbostel und Sachs folgend, bezeichne ich als Querhörner solche hornförmige Blasinstrumente, die nicht an der Spitze angeblasen werden, sondern an einem seitlich angebrachten Loch. Dabei wird man zur Erklärung einer solchen uns zunächst fremdartig erscheinenden Einrichtung wohl daran denken dürfen, dass die ältesten Blasinstrumente aus Tierhörner hergestellt wurden, und dass es ganz ungleich einfacher war, etwa ein Antilopen- oder Ziegenhorn von der Seite her anzuschneiden als von der Spitze an abzutragen oder anzubohren. An der so gewonnenen Form hat man dann wohl festgehalten auch wenn man die Blashörner aus Elfenbein oder Holz oder gar aus Metall herstellte.«

[2]) In the literature to which I have access none such are mentioned.

5:Nordenskiöld E-8,γ(1908-1909, 1913) 1920
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S 534 174 tions — should have occurred within the Amazon basin, and not within the areas of civilization in the west and north-west, if it really were pre-Columbian.

S 174 439 534 By means of far-reaching trade connections it is certain that European and, possibly, African ideas were spread far and wide at the beginning of the Conquest period. *Within a large part of America the continuity between the tribes was at that time, still undisturbed.* When the Whites had completed the conquest of all the great highways — the navigable rivers — trade among the Indians ceased or was at least diminished. The wide extent of inter-Indian trade already appears from the fact that the Indians of the upper Amazon in the seventeenth century obtained axes and knives of iron from Guiana[1]). This proves that Indian trade was carried on over immense distances. Thanks to this trade there were also spread, of course, many purely Indian ideas. Where large tracts are occupied by Indians, trade is still very lively, as in Guiana, along the upper Orinoco and in the Chaco. Only a short time ago Indians appear to have carried on a trade in weapons between Guiana and Rio Negro.[2])

S 174 534 177 In what I have now said I do not consider that I have proved finally that the side-blown trumpet in S America is an African culture-element. I have however demonstrated that is highly possible, and that the question deserves attention.

C Ce 534 174 177 The information I give below, which is based on the literature on the subject and on Museum specimens to which I have had access, indicates my knowledge of the occurrence of trumpets in S. America. Thus it verifies Map 10. The end-blown trumpet may have been obtained by the Chiriguano and Chané from the western area of civilization. In this case the original trumpets must have been of some

[text continues on p. 126]

[1]) Manuel Rodriguez Lib. 2, Cap. XI, P. 131.
[2]) Koch-Grünberg (7).

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10 ●
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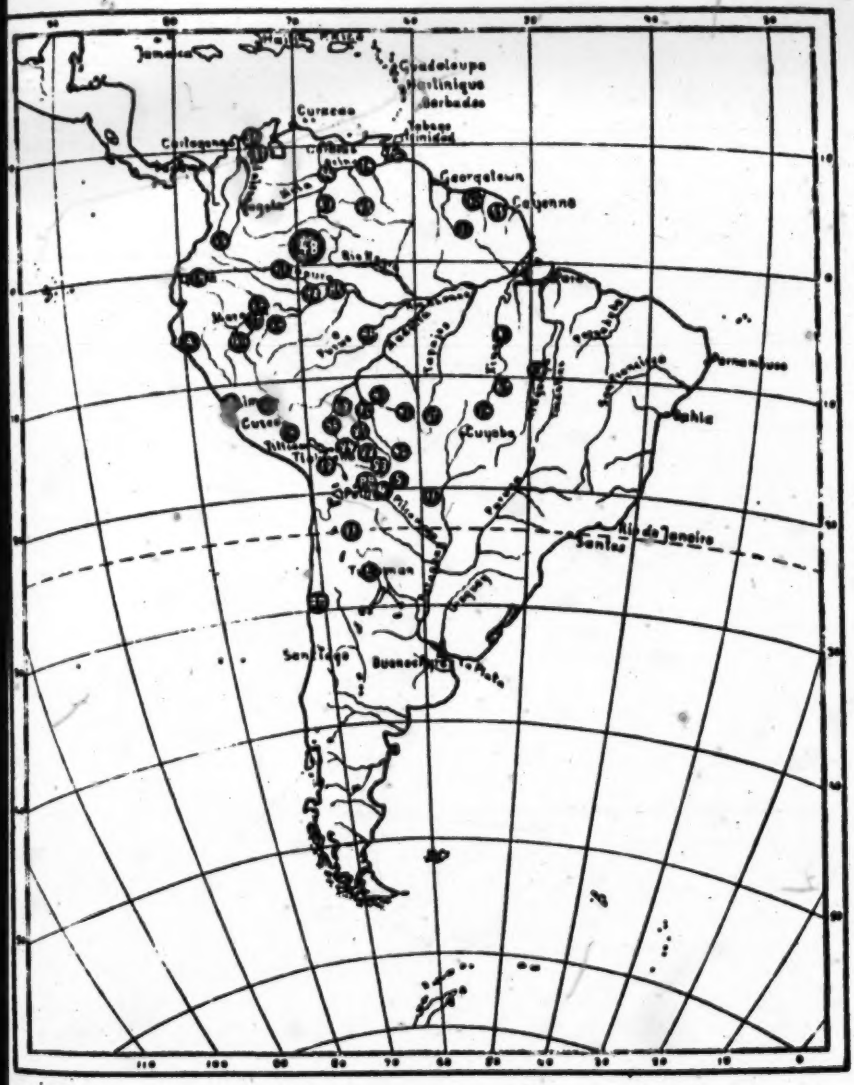

Map. 11. The distribution of the pan-pipe.

5:Nordenskiöld E-5/(1908-1909, 1913) 1920
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other material than the cowhorns introduced by the Whites, e. g. of calabashes, like the old trumpet from Caipipendi. Mouthpieces with lips were presumably, as I said, introduced by the Whites. COMINGES[1]) relates the following little episode which is significant as showing how the Indians learn the use of musical instruments from the Whites. »Á su vista se me occurió la idea de fabricarles un clarinete, lo que hice en pocos minutos con una caña tacuara, del que se arrancaron notas muy agudas parecidos á las que produce la dulzaina; lo que alegró tanto á la concurrencia que hasta los viejos me metían cañas por los ojos bara que les hiciese gaitas, en cuya operación me pasé el resto de la tarde y parte de la noche.»

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The panpipe is very rare here. It consists of four reeds which I have not seen bound together. In the following table and in the accompanying map 11 I have endeavoured, on the basis of the investigations of PATER SCHMIDT, some other writers, and of myself, to indicate the distribution of the panpipe in S. America. The map does not enlighten us as to whether the Chané got the panpipe from the area of civilization in the west, or if it came to them from Indians in N. E. Bolivia. The latter seems the likeliest supposition, as it only occurs within the northern part of the Chané country. It is not a culture-element from Guarani Indians. It is interesting to notice that the panpipe has by no means so great a distribution at it might have. In the Chaco there is abundance of material for panpipes, but they are unknown there. In the wealth of old literature dealing with the Indians on the coast of Brazil, I have found no hints of the panpipe. Oddly enough the panpipe is also unknown among the Indians of the Roraima region. Nor is the panpipe known to the Cainguá Indians. Very possibly the distribution of the panpipe has been considerably extended in post-Columbian times. The well-known investi-

[1]) P. 227

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
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gation of VON HORNBORSTEL points to the panpipe being an Andine culture-element — at least in N. W. Brazil.

Table 13. Map. 10.

End-blown trumpet.[1])

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1. Choroti.
2. Ashluslay.
3. Tapiete.
4. Chiriguano, R. M. E. 511, E. 573. (without mouthpiece).
5. Chané, R. M. P. 106. (with mouthpiece).
6. Mataco.
7. Toba.
8. Lengua, HAWTREY P. 293.
10. Araucanians, GUEVARA (1) P. 170.
12. Mbayá, SÁNCHEZ-LABRADOR Vol. 2, P. 4.
13. Karajá, KRAUSE P. 316.
16. Guató, MAX SCHMIDT (3) P. 309.
18. Quichua. »Quepa es una suerte de trompetilla que hazen de un calabazo largo.» »Tocan asimismo caracoles.» COBO, T. 4, P. 229.
19. Aymara.
30. Guayaqui, KUNIKE Fig. 8.
34. Jivaro, RIVET (1) P. 53.
36. Ijca, BOLINDER (4) P. 269. Köggaba, BRETTES P. 452.
38. Tupinambá, LERY Plate P. 240.
43. Huanyam, G. M. 15. 1. 590.
48. Indians Northwestern-Brazil. KOCH-GRÜNBERG (2) P. Vol. 1, Fig. 116 and 196.
55. Caribs, Surinam, ENCYCLOPÆDIE P. 495. Letter from JOSSELIN DE JONG. (Museum Leiden, Serie 1817 nrs. 193 and 194.)
69. Ipurina, EHRENREICH (2) P. 71; STEERE P. 378.

[1]) I have assumed all the shell trumpets to be end-blown. Side-blown shell trumpets are, as far I know, unknown from S. America.

8:Nordenskiöld E-8,4(1908-1909, 1913) 1920
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95. Chibcha, RESTREPO P. 106.
99. Cumanagoto, GOMARA P. 207.
A. Indians on the coast of Peru, MEAD (1).
IC. Paez, PITTIER DE FABREGA P. 324.
D. Puna de Jujuy and Quebrada del Toro, ERIC VON ROSEN (4) P. 154 and P. 205.
F. San Juan, DEBENEDETTI (4) P. 235.
X. Yuruna, M. f. V. B. (V. B. 1725).
1 F. Indians, Sierra Mene. OVIEDO T. 2, P. 282.
V 7. Saliva, GUMILLA T. I, P. 217.

Side-blown trumpets.

13. Karajá, KRAUSE P. 316.
14. Bororó, KARL VON DEN STEINEN (3) P. 496.
20. Paressi, MAX SCHMIDT (4).
28. Kamayurá. M. f. V. B. (V. B. 2940.)
41. Pauserna, G. M. 15. 1. 847.
47. Indians Roraima, G. M. 12. 1. 50.
48. Indians Northwestern—Brazil, KOCH-GRÜNBERG (2) Fig. 140.
50. Šavajé, KRAUSE P. 365.
64. Huari.
85. Juri, RATZEL Vol. I, P. 464.
98. Tembé, BARBOSA RODRIGUEZ (2) P. 43.
P. Island of Aruba, Etnographical Museum in Leiden. Serie 472, Nr. 9. Kindly communicated by Dr. JOSSELIN DE JONG.
X. Yuruna, M. f. V. B. (V. B 1726, V. B. 1728 b, B. 1727).
1 P. Negroes, Surinam, R. M. Collection of Baron AXEL KLINKOWSTRÖM.
3 P. Mauhé, RATZEL Vol. 1, Plate P. 497.
5 H. Parentintin(?), Rio Tapajos. (Fig. 37 D) It is probably correct to assume that these trumpets are from the Rio Tapajos region. It is very doubtful if they are from the Parentintin, as they form part of an old collection (Dr. CASTRO's) which seems to be rather carelessly labelled.
5 X. Canella, KISSENBERTH (1) P. 51.

StNordenskiöld E-5,4 (1908-1909, 1913) 1920
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Trumpets of which little is known.

25. Mojo, CASTILLO P. 341. The horns for the trumpets the Indians brought from Sta Cruz de la Sierra. EDER P. 334. »primum cucurbitis oblongis aut rotundis constat; illas more tubarum, has inserta fistula inflant».
29. Caingang, BLEVER P. 835; D'ESCRAGNOLLE TAUNAY P. 578.
38. Tupi, Coast of Brazil. SOARES DE SOUZA P. 300. (Tupinambá), P. 312 (Tupinaè), P. 314. (Amoipira); LERY P. 234; »blasen in bosaunen von kürbissen gemacht.» STADEN.
40. Itatines, LITTERAE ANNUAE 1594—1595 P. 751.
56. Mundrucú, TOCANTINS P. 134.
91. Indians Rio Amazonas, CARVAJAL P. 64.

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Table 14.

The pan-pipe. Map. 11.

4. ? Chiriguano.
5. Chané, R. M. P. 174.
11. Chamacoco, PATER SCHMIDT P. 1060.
13. Karajá, EHRENREICH (2) P. 24.
18. Quichua, COBO Vol. 4, P. 229.
Museum Copenhagen (H 1057), Quito.
19. Aymara.
20. Paressi, MAX SCHMIDT (4) P. 240.
22. Yuracáre, NORDENSKIÖLD (9) Fig. 57.
23. Churápa, R. M. Tj. 33.
24. Chimáne, G. M. 15. 1. 1001.
25. Mojo, EDER P. 332, Fig. 8.
28. Indians upper Rio Xingú, K. v. d. STEINEN (3) P. 327.
31. Ojana, Trio, GOEJE (1) Pl. VII, 13.
33. Campa, ORDINAIRE P. 281.
36. Ijca, Köggaba, BOLINDER (4) P. 263.
37. Motilon, » » P. 270.
40. Guarayú (Guarayos), R. M. G. 47.

SiNordenskiöld E-8,V(1908-1909, 1913) 1920
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534 41. Pauserna, G. M. 15. 1. 848.
102 43. Huanyam, G. M. 15. 1. 595.
*171 48. Indians Northwestern Brazil, KOCH-GRÜNBERG (2).
S PATER SCHMIDT P. 1060.
102 54. Guahibo, R. M. H. M. K. II. 7.
171 55. Caribs, French Guiana, BARRERE P. 131.
534 58. Cavina, G. M. 15. 1. 1464.
61. Indians Rio Yapurá, WHIFFEN P. 210, Pl. XLIX
62. Chacobo, R. M. Ch. 75.
67. Suyá, K. v. d. STEINEN (3) P. 327.
68. Omagua. PATER SCHMIDT P. 1060.
74. Tamanaco, GILIJ Vol. 2, P. 275.
85. Juri, RATZEL Vol. 1, P. 464.
A. Found on the coast of Peru. MEAD (1).
7C. Itonama, G. M. 15. 1. 1270.
3D. Cocama, PATER SCHMIDT P. 1060.
E. Diaguita, AMBROSETTI (6) Segunda parte, P. 489. Earthen vessel representing a figure with a pan-flute in the hands found at Amaicha, Valle Calchaqui, Provincia de Tucuman. AMBROSETTI (2) T. 19, P. 221.
2 F. Indians Susques, BOMAN P. 464. Imported from Bolivia.
9H. Indians at Sarayacu, SMYTH AND LOWE P. 214.
8P. Paumari, STEERE P. 387.
V5. Maquiritare. PATER SCHMIDT P. 1060.
V8. Peba.
V9. From Timana, REGEL. Pl. 24, Fig. 19.
X. Yuruna, K. v. d. STEINEN (2) P. 259.
X3. Piaroa, R. M. H. M. K. I. 72.
9X. Passe, PATER SCHMIDT P. 1060.
an Found at Serena, Chile. MEDINA (1) Fig. 79.
pp Found at Iruya, Argentine. ERIC VON ROSEN (4) P. 381.

6: Nordenskiöld--92 E-5 (1908-1909) 1912 SF10 Chiriguano SF10
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Chapter Sixteen

On the Life of the Chané and Chiriguano Indians (Continuation)

Art and Industry

The Chiriguano and Chané are tribes whose art-industry is on a very high level. If one visits one of the huts of the white settlers in these regions, one will not see many products of native industry, not much of their own culture. I know of absolutely nothing that these people are capable of doing which can compare with the pottery and the weaving technique of the Indians. One thing is certain, the more "civilized" the Indians become, the less they accomplish in the way of art and industry. They do not learn much more from the whites than how to make and drink liquor. Indian art-industry is gradually disappearing here, the more the Indians come in contact with the whites, but it is not transformed. It remains largely purely Indian until its final destruction. One industry, however, is now in the hands of the whites, namely, the metal industry. The silver ornaments which, for example, the Chiriguano and Chané use are made by the smiths in the villages of the mountain regions. The half-white or Quichua /Quechua/ Indian population which we come across in the mountains west of the land of the Chiriguano and Chané Indians is quite skilled artistically. The weaving technique in particular is very highly developed there. The Chiriguano and Chané undoubtedly learned a great deal from the west.

Thus we find the serére pipe[1] (Fig. 120) characteristic of the Chiriguano in collections from the coast of Peru (1); /Plate

1. Serére also occur among the Lengua, Ashluslay, Chiriguano, Chané, Churápa, and Yuracáre.

19 appears here/ /243/ the pin for fastening women's clothing

[1] [A flute-like musical instrument--Analyst]

[TEXT continues on P. 94]

/243 cont./
(Fig. 130) is typically Peruvian in form, as is the silver hair remover, of which, however, I have no specimen. The festive costume of the man (Fig. 81) also seems to me to have a Peruvian cut. It is possible, however, that the influence of Peru did not manifest itself among the Chiriguano until after the conquest of the plateau by the Spanish.

Boman (1) has proved that the Chiriguano, or more correctly the Gûarani tribe to which these Indians belong, formerly extended much farther south than they do now. He found there the grave urns so characteristic of them.

1. Boman: Antiquités de la Région Andine. Vols. 1-2. Paris, 1908.

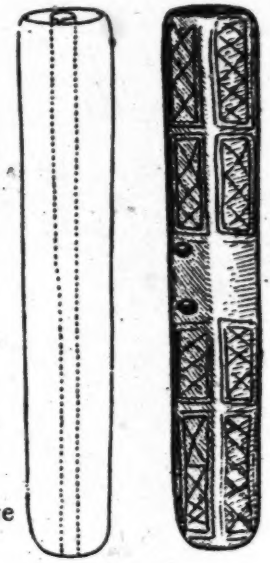

Fig. 120. Serére pipe. Chiriguano. 1/4.

The material culture of the Chané Indians does not, in general, differ very much from the culture of the Chiriguano. The Chané, on the other hand, who are more isolated on the Rio Parapiti, have a completely independent pottery which we do not find again among the Chiriguano. If we compare the remaining products of Chané and Chiriguano industry, we do not find any greater differences than we find in the various Chiriguano villages themselves.

For example, if one collects clay vessels in the Iguembe valley and in the Caipipendi valley, both of which valleys are occupied by Chiriguano, one inevitably finds that the pottery, though strongly related in ornamentation and form, nevertheless /244/ also varies locally. I have already spoken of the individual variations (p. 85).

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[302] other inconvenient hair-growth, and which are still in use among the Chiriguano.[1]

I have noted a circumstance, previously unheeded, that, in my opinion, gives considerable weight to Nordenskiöld's theory as to the true Indian origin of the boivéra ornament. All breast ornaments of this kind have in their upper part a tubular horizontal perforation, open at both ends. In the middle of this barrel, and through the top, there is a hole. Through this barrel and upper hole is run the cord by which the ornament is worn round the neck (fig. 199). This rather peculiar arrangement for fixing the cord on which the ornament is hung, is found in the majority of such ancient Indian hanging ornaments, whistles and flutes of stone, as were meant to be worn a string. As an example, the remarkable ancient Indian stone flute, found in the earth in the vicinity of Iruya,[2] has at one end been bored through (fig. 200) in a manner exactly corresponding to the arrangement for the cord in the boivéra. This cord-fixing adaptation does not, to my knowledge, occur in any European object. For this reason it may surely be considered as very probable, not only that the original use of the boivéra as a pair of tweezers is of Indian origin, but also that the idea of carrying the tweezers on a string round the neck is Indian, and consequently has not originated from those more or less »white» jewellers that nowadays manufacture boivéra ornaments, and sell them to the Indians. I have in another book depicted a fragment of a small, pre-Spanish, ornamented bronze tweezers, which, like the boivéra, has a circular perforation at its upper end,[3] indicating that those tweezers, too, were worn on a cord, and consequently also in all likelihood served as a breast ornament.

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Fig. 200. Pan-pipe of stone. Ground-find from Iruya. Bolivia. 1/2. The dotted line marks the hole for fastening a string in the same way as for the breast ornament, fig. 199.

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[1] Nordenskiöld (12), pp. 81—83, 92 and 94.
[2] von Rosen (10), pp. 147 and 148.
[3] von Rosen (10), fig. 211.

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by them to any considerable extent; I myself never saw any Chiriguano smoking.

The Chiriguano are very fond of music and dancing. Their musical instruments consist of a kind of primitive trumpets of cow-horn, reed flutes, whistles and drums.

An interesting Chiriguano whistling pipe is here reproduced, in fig. 227. It consists of a flat piece of some hard and heavy wood; is 18.5 cm long, 3.6 cm wide, and has a section as set out in the figure. It has, pierced through its longitudinal axis, a tubular perforation, 7 to 9 mm in diameter, and open at both ends, running from end to end of the instrument. In the centre of its upper edge there are two, somewhat smaller, holes through which is threaded the string which allows of the pipe being worn round the neck as a breast ornament. The carrying cord running through two holes, side by side, probably indicates that the pipe was meant to hang horizontally on the breast. If there had been only one hole for the cord, the pipe would have tilted one way or the other, like the beam of a pair of scales. The pipe is designed for blowing on in the

Fig. 223. Food bowl of earthenware. Inside and bottom unpainted. The rest of it painted yellowish white, with ornaments painted in dark brown (marked black) and red (represented by thin lines). Chiriguano. Aguayrenda. Bolivia. 1/4. Riksm. 03. 3. 846.

Fig. 224. Hanging bowl, for keeping small articles. Earthenware. Inside and bottom unpainted. The rest painted yellowish white, with ornaments in dark brown. Chiriguano. Aguayrenda. Bolivia. 1/4. Riksm. 03. 3. 843.

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Fig. 225. Hanging bowl, for keeping small articles. Earthenware. Inside and bottom unpainted. Otherwise painted yellowish white, with ornaments in dark brown (marked black) and red (represented by thin lines). Chiriguano. Aguayrenda. Bolivia. 1/4. Riksm. 03. 3. 844.

534 same way as Pan pipes, and *naturally gives out tones, when one end of the tube is closed, different to those producible with both ends open.* The pipe is open at both ends, therefore, not only because this allows the instrument to be easily cleaned from dust, dirt and saliva, but also because *this construction gives the possibility of a greater number of tones.*

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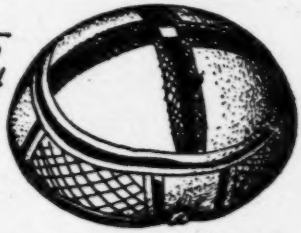

Fig. 226. Bowl, of calabash, up-turned, with pokerwork ornaments. Chiriguano. Carapari. Bolivia. 1/2. Riksm. 03. 3. 831.

Fig. 227. Whistle, made of hard, black wood. Incised ornaments. Two cracks near one end of the tube have been filled up with a waxy substance. Chiriguano. Aguayrenda. Bolivia. 1/2. Riksm. 03. 3. 848.

534 171 That the Indians occasionally also give a thought to keeping dust, etc., from getting into their whistling pipes, is, besides, evident from the pipe shown in fig. 228, which is an Araucan whistle from Cautin, Chile, a tubular piece of wood, 27.5 cm long. A common brass thimble is fitted over the lower end of the pipe, and for its top end there is a small, well made stopper of woollen-yarn, connected to the pipe with a string, so as not to get lost when taken out for the whistle to be blown. Concerning this stopper, Eric Boman, who has reproduced the pipe in one of his works, writes as follows: »Este tapón sirve para cerrar la boca del silbato, cuando éste no se usa, e impedir que entren allí tierra y otras impurenzas.»[1] »This stopper serves to keep the mouth of the whistle closed when the latter is not being used, and prevents dust and other dirt from entering.»

Fig. 228. Whistle, found at Cautin. Chile. From Boman.

Objects of tubular form, in construction corresponding to the one here reproduced in fig. 227, have been found in ancient Peruvian graves, and not only the Chiriguano, but also many other tribes now inhabiting areas in the neighbourhood of what once was the Inca domain, are still

[1] Boman (2), p. 518.

using whistles of this type.[1] Nordenskiöld has advanced a theory as to the origin of the Serére whistle, which is highly interesting. On the ground of the similarity of construction that this type of whistle has to a balance beam shown in fig. 229, with its cords for weights and load still in preservation, found in Peru, Nordenskiöld is of the opinion that the Serére whistle is probably the beam of a balance, but that its original use has been forgotten.[2] By blowing, in play, into one end of such a balance beam, a tone was produced. This way of whistle-blowing gradually became widespread and popular, and, eventually, whistles were manufactured that were of a construction similar to that of the balance beams of the ancients. More and more the balances ceased to be used as such, and finally it was altogether forgotten that the whistle had been made as a copy of the balance beam.

Fig. 229. Scale, with a wooden beam. Probably an improvisation from a whistle of Serére type, which forms the bar of the balance. Ground find from Peru. 1/4. Illustration from E. Nordenskiöld.

On my first acquaintance with this theory of the Serére whistle having originated from the balance beam, it seemed to me so well grounded that I accepted it.[3] But afterwards I quite changed my opinion in this question, for reasons set out below. The ancient Peruvian balance referred to by Nordenskiöld is undoubtedly of a very unpractical construction. Like the Serére whistle, the balance beam is *bored through from end to end*, and provided with *two holes, close together, for its suspension*. Even if in rough and primitive weighing there may occasionally be a certain advantage (a saving of time) in using a balance that is not too sensitive, suspending a balance from two

[1] Nordenskiöld (11), p. 185.
[2] Nordenskiöld (11), pp. 187—188.
[3] von Rosen (8), pp. 211—212.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

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points of support, in the way shown in fig. 229, is unsuitable, as it would enable the holder of the balance to influence, with an imperceptible movement of his hand, the balancing of the beam. Another point which strikes me as peculiar, is, that the string by which weights and objects for weighing are suspended, should be made to pass through a hole that runs the whole length of the longitudinal axis of the beam. A perforation of such a length obviously represents a good deal of labour, which, moreover, in the case of a balance beam, would be quite unnecessary. Surely the simpler plan would have been to fix a string through a small hole at each end of the beam.

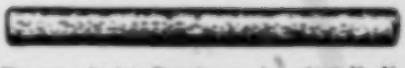

Fig. 230. Ancient Peruvian wooden whistle(?). ¼. From Nordenskiöld. One end of the tube has been stopped up, possibly on account of the whistle having been found too hard-blown with both ends open. All other known Old Peruvian objects of this type have *both ends open*.

The above were my reasons for beginning to form the opinion that the Old Peruvian balance, fig. 229, had been rigged up to do duty as a makeshift. A proper balance not being at hand, a tubular whistle, fig. 230, was pressed into service. In this way the ancient Peruvian balance, fig. 229, would — if my theory is correct — simply prove to be *a whistle that had been provisionally fixed up as a weighing instrument.*

Fig. 231. Old Peruvian scale. From Hamy.

It is not impossible that this way of hastily improvising a balance — rather a dull one, admittedly, but usable for *rough weighing* — was not infrequently employed. When I acquainted Nordenskiöld with my theory as to the constructional purpose of the balance reproduced in fig. 229, he had the great kindness to send me all reproductions of Old Peruvian balances that were in his possession. Three of these retain the cord by which the beam was suspended (the poising cord), and *in these three, this cord is fixed through a hole in the centre of the beam*, fig. 231. Two of the balances are provided with cords on which to hang the weights and the objects to be weighed. *These cords are not taken through the full length of the balance beam, but attached to it by means of holes bored*

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

in each of the lower corners of the beam ends, fig. 231. From the illustrations representing the rest of the Old Peruvian balances it cannot be seen in what way the poising and weight cords were fixed. The balances in question have, however, been published in Hamy's grand work, Galerie américaine, and from that work I have therefore endeavoured to gain information concerning this matter. There is only one balance, one without weight cords, that has been given a detailed description, and regarding this, it is stated that the beam, at its centre, has *a vertical perforation* (for the poising cord), and that the lower corners of the beam ends are each pierced with a slanting hole (»les angles inférieurs sont aussi perforés mais obliquement«).[1] If one or more of the balances reproduced had been of a different construction in this detail, the fact would no doubt have been noted in the text.[2] From what I have adduced above, it therefore follows that the illustrative material, which Nordenskiöld so chivalrously submitted for my criticism of his theory, most essentially enhances the probability of my opinion that the unhandy Old Peruvian weighing apparatus shown in fig. 229, is an improvisation of a whistle which, as I aimed at proving in a separate monograph, belongs to a type of open whistles which is widely distributed over the American continent.[3]

As mentioned, the Chiriguano live in villages, and it is only exceptionally that one comes across isolated huts. Each village is under the authority of a headman, or chief.

Both sexes marry at an early age. Monogamy is the rule, but well-to-do men, and chiefs, may be found who have several wives. When a girl menstruates for the first time, her hair is cut short (fig. 194), and she is kept shut up in a hut until her hair has grown long again, after which she is considered marriageable. When a boy attains to puberty, a hole is made through his lower lip, and a wooden plug is put into the hole. Subsequently this is exchanged for a bead-studded »tembeta« (figs. 194 and 197). Marriages are celebrated by feasting, when large quantities of maize beer are consumed. The women pass through childbirth easily, and therefore do not require many days of nursing after the child has

[1] Hamy (1), p. 110.

[2] At the British Museum there is an ancient Peruvian scale apparently of the same construction as those described by Hamy. Joyce (1) p. 130, fig. 11.

[3] see Rosen (8).

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Plate XII

Fig. 33

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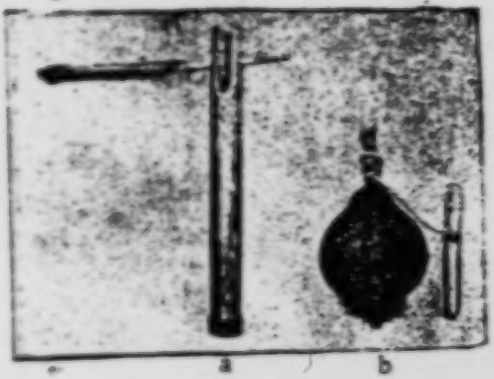

Fig. 35

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Fig. 34

Fig. 36

/The captions appear on p. 91./

8: Schmidt--91 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

/Captions for Plates XII and XIII/

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Plate XII

Fig. 33. Wooden flutes, "serere" (Chiriguano): a (I. A. 492), length 20 cm.; b (I. A. 491), length 17 cm.

Fig. 34. a (I. A. 494): Cane flute (Chiriguano), length 41 cm.
b (I. A. 495): double whistle of cane (Chiriguano), length 33.5 and 7 cm.

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Fig. 35. a (I. A. 506): rattle, a toy for children (Chiriguano), length 23.5 cm.
b (I. A. 505): top, a toy for children (Chiriguano), length 16 cm.

Fig. 36. a (I. A. 510): toy for children, "mou-mou" (Chiriguano), diameter of the disk 6 cm.
b (I. A. 509): sling (Chiriguano), length (without cords) 14 cm.

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Plate XIII

Fig. 37. Bows and arrows: a (I. A. 757), bow (Izozó), length 1.32 m.; b (I. A. 756), bow (Izozó), length 1.41 m.; c (I. A. 519), arrow (Chiriguano), length 1 m.; d (I. A. 521), arrow (Chiriguano), length 0.85 m.; e (I. A. 534), arrow for birds (Chiriguano), length 1.11 m.; f (I. A. 748), arrow (Izozó), length 0.94 m.; g (I. A. 528), arrow (Chiriguano), length 0.94 m.; h (I. A. 750), arrow (Izozó), length 0.835 m.

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Fig. 38. (I. A. 517.) Macana (Chiriguano), length 0.64 m.

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Fig. 39. (I. A. 764.) Fishing implement (Izozó), length 73.5 cm.

/79 cont./

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We must still note that the Chiriguano and Chané transport fish in the same way as the neighboring tribes of the Chaco, by stringing them on a cord provided with a big wooden needle (295).

295. Nord. 2, p. 46.

Implements for Storing Objects

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Most of the objects that serve for storing things have also been mentioned in preceding chapters, such as the various kinds of baskets and the wooden hoops which are hung in the houses for storing sundry things in them. The net bag and the carrying net do not serve only for carrying, but also for storing things in them. Baked clay vessels are not only used for storing liquids, but are also used for storing many other things which have a special value or are old memorabilia of the family (296). Furthermore,

296. Nord. 1, p. 179.

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they put up special hooks for hanging various things in the houses. Such a hook is shown in a drawing by Nordenskiöld (297),

297. Nord. 1, p. 177 and Fig. 86.

and Métraux shows such a hook made of a deer's leg (298).

298. Métraux I, Fig. 128.

Art

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Flutes and a Whistle in the Collection

I. A. 491. Flute, "sererê" (Chirig.). Wood. Lgth. 17 cm. Width 2.7 cm. (Fig. 33b.)

I. A. 492. " " " " " 20 cm. Width 3.5 cm. (Fig. 33a.)

I. A. 493. Flute (Chiriguano). Cane. Length 43 cm.

/79 cont./

534 I. A. 494. Flute (Chiriguano). Cane. Lgth. 41 cm. (Fig. 34a.)
[126] I. A. 495. Double whistle " " " 33.5 and 7 cm. (Fig. 34b.)

[126] From the Chiriguano in Machareti I acquired two different kinds of flutes, the ones made of cane and the others made of wood. The two wooden flutes I. A. 491 and 492 (cf. Figs. 93a and 93b /see Fig. 33a and b, p. 89/) are of particular importance because of their similarity in form, and in the case of I. A. 491 of decoration as well, to a special kind of balance beam of the ancient Peruvians, and for that reason they have already been dealt with several times in ethnological literature. These two flutes are doubtless quite old specimens which perhaps had already been used by several generations. They are called "sereré" by the Chiriguano, and they are of hard wood bored from one end to the other. In the middle of the upper edge of the lozenge of the apparatus, there are two small perforations .. A similar flute shown in a sketch by v. Rosen (299)

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[301]

299. V. Rosen, op. cit., p. 220.

shows that these perforations serve for a string to pass through, in order that the flute may be worn as a chest ornament. Nordenskiöld (300) has already called attention to the surprising

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300. Nord. 3, pp. 187 and 188.

resemblance between these flutes and a special form of balance beam of the ancient Peruvians. These, numerous specimens of which are known, are no doubt classified as balance beams because of the fact that on some specimens /80/ the cord which passes through the horizontal perforation and which has at one end a weight and at the other end a loop, or some such similar thing for holding the objects that are to be weighed, has been preserved. V. Rosen, describing and showing in a drawing one of these Chiriguano flutes, which is like flute I. A. 491 except that it still has the cord which passes through the two holes on the upper

C /80 cont./
C 534 edge, puts forward against Nordenskiöld's deductions his opinion
174 that the ancient Peruvian objects of this form might originally
171 have been flutes and that they might have been used only ex-
C ceptionally, in the event of necessity or only secondarily, as
[114] balance beams. Among the objects of this kind in the ancient
C Peruvian collection of the museum in Berlin so many specimens
[177] clearly show that they are balance beams that I cannot say that
C I agree with this opinion by V. Rosen (301). We must agree
[113]

301. Cf. Max Schmidt, Kunst ünd Kultur von Peru /Art and Culture of Peru/, p. 99, fig. p. 544, N. 8-10.

with V. Nordenskiöld's opinion that these wooden objects used by the ancient Peruvians as balance beams may have been accepted by the Chiriguano, not as balance beams, because the Chiriguano did not have the need to weigh anything, but as flutes. We must mention that with this kind of flute, open at both ends, two different sounds can be produced, depending upon whether the lower hole is left open or is closed with the finger.

The two Chiriguano flutes made of cane have six holes for varying the sound and one hole, at one side, for the mouth. Cf. Figure 39a /see Fig. 34a, p. 89/. Nordenskiöld, who shows such a flute in a drawing (302), is of the opinion that the

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302. Nord. 2, Fig. 36 A.

Chiriguano and Chané received this kind of flute from the mestizos or whites, because such flutes provided with a hole at one side for the mouth do not exist among the other Indians of South America or among the ancient Peruvians.

/80 cont./

Ee 534

The double whistle I.A. 495 consists of two pieces of cane joined together in the manner of Panpipes. In contrast to the flutes described in the preceding, the two tubes of these whistles have lips. One, which has four holes for making the sounds vary, measures 33.5 cm., and the other, which does not have such holes, is only 7 cm. long. A whistle of this kind, but not double, is shown in a drawing by Nordenskiöld (303).

303. Nord. 2, Fig. 36b.

In addition to these musical instruments, Nordenskiöld describes a few others that he saw among the Chiriguano and Chané. Among them can also be found those round flutes which are used by many tribes of the Chaco and one of which is shown in a sketch by Nordenskiöld (304). They also have large

Ee [171]

304. Nord. 2, Fig. 35.

trumpets, which the Chiriguano call "angùahuasi," while the common trumpet is called by the same name as is the mortar, "angúa" or "angúarai." One can also find trumpets made cut of a cow's horn or a calabash, which are blown at the upper end (305).

Ee [237] [824]

305. Nord. II, p. 119, Fig. 37 A and B.
Métraux I, p. 337, Fig. 35.

According to Nordenskiöld, the Panpipes, which consist of several flutes joined together, are rarely found among these Indians (306).

306. Nord. 2, p. 126.

Ee 415 532

Plastic art is little developed among the Chiriguano and Chané. On rare occasions we find plastic art in the form of animals in the forms of the baked clay pottery of the Chiriguano (307).

307. Nord. 2, Fig. 41, N. 4, and Fig. 45, N. 20.